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| NEWS | 11 | FEB | 02 | Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE |
| NEWS | 12 | FEB | 0.2 | GENBANK enhanced with SET PLURALS and SET SPELLING |
| NEWS | | FEB | | Patent sequence location (PSL) data added to USGENE |
| NEWS | | FEB | | COMPENDEX reloaded and enhanced |
| NEWS | | FEB | | WTEXTILES reloaded and enhanced |
| NEWS | | FEB | | New patent-examiner citations in 300,000 CA/CAplus |
| NEWS | 10 | FEB | 19 | new patent-examiner citations in 300,000 CA/CAPIDS patent records provide insights into related prior art |
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| NEWS | 18 | FEB | 23 | Several formats for image display and print options discontinued in USPATFULL and USPAT2 |
| NEWS | 19 | FEB | 23 | MEDLINE now offers more precise author group fields and 2009 MeSH terms |
| NEWS | 20 | FEB | 23 | TOXCENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms |
| NEWS | 21 | FEB | 23 | Three million new patent records blast AEROSPACE into STN patent clusters |
| NEWS | 22 | FEB | 25 | USGENE enhanced with patent family and legal status |
| NEWS | 23 | MAR | 06 | display data from INPADOCDB INPADOCDB and INPAFAMDB enhanced with new display formats |
| NEWS | EXPI | RESS | JUNE | E 27 08 CURRENT WINDOWS VERSION IS V8.3, |

AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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=> file rea

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FULL ESTIMATED COST

SINCE FILE 0.44

TOTAL. ENTRY SESSION 0.44

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Uploading C:\Program Files\Stnexp\Oueries\10594105restriction.str

G1:C,N

chain nodes : 25 26 27 30

G2:CF2,CF3,CC12,CC13,CBr2,CBr3,X

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 27:CLASS 30:CLASS 31:Atom

L1 STRUCTURE UPLOADED

=> d 11 L1 HAS NO ANSWERS L1 STR

G1 C,N G2 CF2,CF3,CC12,CC13,CBr2,CBr3,X

Structure attributes must be viewed using STN Express query preparation.

=> s 11 full FULL SEARCH INITIATED 16:25:28 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 10796 TO ITERATE

100.0% PROCESSED 10796 ITERATIONS SEARCH TIME: 00.00.02 116 ANSWERS

116 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS SINCE FILE TOTAL. ENTRY SESSION FULL ESTIMATED COST 186.36 186.80

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=> s 12 full T.3 10 L2

=> file rea COST IN U.S. DOLLARS

SINCE FILE ENTRY SESSION FULL ESTIMATED COST 1.50 188.30

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=>

Uploading C:\Program Files\Stnexp\Queries\10594105pyrimidine.str

```
chain nodes: 25 26 27 30 ring nodes: 25 26 27 30 ring nodes: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 chain bonds: 6-25 10-27 14-26 17-20 25-27 26-27 ring bonds: 1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
```

<12/04/2007> Erich Leese

14-15 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24

```
exact/norm bonds :
6-25 13-14 13-18 14-15 14-26 15-16 16-17 17-18 17-20 25-27 26-27
exact bonds :
10-27
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 19-20 19-24
20-21 21-22 22-23 23-24
isolated ring systems :
containing 1 : 7 : 13 : 19 :
G1:C.N
G2:CF2,CF3,CC12,CC13,CBr2,CBr3,X
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 26:CLASS 27:CLASS 30:CLASS
31:Atom
I.4 STRUCTURE UPLOADED
=> d 14
L4 HAS NO ANSWERS
               STR
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
Structure attributes must be viewed using STN Express query preparation.
=> d 14
L4 HAS NO ANSWERS
L4
               STR
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
Structure attributes must be viewed using STN Express query preparation.
=> s 14 full
FULL SEARCH INITIATED 16:28:23 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -
                                   267 TO ITERATE
100.0% PROCESSED
                   267 ITERATIONS
                                                                  6 ANSWERS
SEARCH TIME: 00.00.01
             6 SEA SSS FUL L4
L5
=> file caplus
COST IN U.S. DOLLARS
                                                  SINCE FILE
                                                                  TOTAL
                                                       ENTRY
                                                               SESSION
FULL ESTIMATED COST
                                                      185.88
                                                               374.18
```

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=> s 15 full 6 L5 L6

=> file rea COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 2.00 376.18

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chain nodes :

predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

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=>

Uploading C:\Program Files\Stnexp\Oueries\10594105methyl.str

```
19 20 21 22 25 ring nodes:
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 chain bonds:
1 2 0 1 -22 14-21 17-19 20-22 21-22 ring bonds:
1 -2 1 -6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15 15-16 16-17 17-18 exact/norm bonds:
6-20 13-14 13-18 14-15 14-21 15-16 16-17 17-18 17-19 20-22 21-22 exact bonds:
10-22 normalized bonds:
10-22 normalized bonds:
1-2 1 -6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
```

G1:C,N

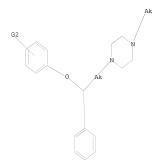
G2:CF2,CF3,CC12,CC13,CBr2,CBr3,X

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 17:Atom 17:Atom 18:Atom 19:Atom 20:CLASS 21:CLASS 22:CLASS 25:Atom

L7 STRUCTURE UPLOADED

=> d 17 L7 HAS NO ANSWERS L7 STR



G1 C,N G2 CF2,CF3,CC12,CC13,CBr2,CBr3,X

Structure attributes must be viewed using STN Express query preparation.

=> s 17 full FULL SEARCH INITIATED 16:31:06 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 69180 TO ITERATE

100.0% PROCESSED 69180 ITERATIONS SEARCH TIME: 00.00.02 74 ANSWERS

L8 74 SEA SSS FUL L7

=> file caplus

 COST IN U.S. DOLLARS
 SINCE FILE
 TOTAL

 FULL ESTIMATED COST
 188.88
 552.06

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=> s 18 full L9 8 L8

=> file reg COST IN U.S. DOLLARS

 COST IN U.S. DOLLARS
 SINCE FILE
 TOTAL

 ENTRY
 SESSION

 FULL ESTIMATED COST
 2.50
 564.56

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http://www.cas.org/support/stngen/stndoc/properties.html

=)

chain nodes :

Uploading C:\Program Files\Stnexp\Queries\10594105piperidine.str

```
19 20 21 22 25 33 34 ring nodes:
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 27 28 29 30 31 32 chain bonds:
6-20 10-22 14-21 17-19 19-29 19-33 20-22 21-22 ring bonds:
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15 15-16 16-17 17-18 27-28 27-32 28-29 29-30 30-31 31-32 exact/norm bonds:
6-20 13-14 13-18 14-15 14-21 15-16 16-17 17-18 19-33 20-22 21-22
```

exact bonds:
10-22 17-19 19-29
normalized bonds:
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 27-28 27-32
28-29 29-30 30-31 31-32
isolated ring systems:
containing 27:

G1:C.N

G2:CF2,CF3,CC12,CC13,CBr2,CBr3,X

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:CLASS 21:CLASS 22:CLASS 25:CLASS 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom 32:CLASS 33:CLASS 34:CLASS 35:Atom

L10 STRUCTURE UPLOADED

=> s 110 full

FULL SEARCH INITIATED 16:34:52 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 847 TO ITERATE

100.0% PROCESSED 847 ITERATIONS SEARCH TIME: 00.00.01 6 ANSWERS

L11 6 SEA SSS FUL L10

=> file caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 186.36 750.92

FULL ESTIMATED COST

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=> s 111 full

L12 2 L11

=> s 112 or 19 or 16 or 13

L13 16 L12 OR L9 OR L6 OR L3

=> d ibib abs hitstr tot
```

L13 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:803320 CAPLUS

DOCUMENT NUMBER: 149:215113

TITLE: Two-dimensional QSAR studies on arylpiperazines as

high-affinity 5-HT1A receptor ligands AUTHOR(S): Weber, Karen C.; Honorio, Kathia M.; Andricopulo,

Adriano D.; Da Silva, Alberico B. F.

CORPORATE SOURCE: Instituto de Ouimica de Sao Carlos, Universidade de

Sao Paulo, Sao Carlos, 13560-970, Brazil SOURCE: Medicinal Chemistry (2008), 4(4), 328-335

CODEN: MCEHAJ; ISSN: 1573-4064 PUBLISHER: Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal English

LANGUAGE:

- AB 5-HT1A receptor plays an important role in the delayed onset of antidepressant action of a class of selective serotonin reuptake inhibitors. Moreover, 5-HT1A receptor levels have been shown to be altered in patients suffering from major depression. In this work, hologram quant. structure-activity relationship (HOSAR) studies were performed on a series of arylpiperazine compds, presenting affinity to the 5-HT1A receptor. The models were constructed with a training set of 70 compds. The most significant HQSAR model (q2 = 0.81, r2 = 0.96) was generated using atoms, bonds, connections, chirality, and donor and acceptor as fragment distinction, with fragment size of 6-9. Predictions for an external test set containing 20 compds. are in good agreement with exptl. results showing the robustness of the model. Addnl., useful information can be obtained from the 2D contribution maps.
- 328248-15-3 328248-21-1 328248-23-3 328248-24-4 328248-30-2 328248-36-8

753439-74-6 767277-20-3 777843-82-0

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses) (two-dimensional QSAR studies on arylpiperazines as high-affinity 5-HT1A receptor ligands)

328248-15-3 CAPLUS RN

CN Piperazine, 1-(4-chlorophenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy[propyl]- (CA INDEX NAME)

RN 328248-21-1 CAPLUS

CN Piperazine, 1-(4-methoxyphenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy[propyl]- (CA INDEX NAME)

- RN 328248-23-3 CAPLUS
- CN Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1piperazinyl]- (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

- RN 328248-24-4 CAPLUS
- CN Piperazine, 1-(2-chloropheny1)-4-[3-pheny1-3-[4-(trifluoromethy1)phenoxy]propy1]- (CA INDEX NAME)

- RN 328248-30-2 CAPLUS
- CN Piperazine, 1-(4-nitrophenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

- RN 328248-36-8 CAPLUS

- RN 753439-74-6 CAPLUS
- CN Piperazine, 1-(4-fluoropheny1)-4-[3-pheny1-3-[4-

<12/04/2007>

Erich Leese

(trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

$$\stackrel{\text{Ph}}{=} \text{CF} = \text{CH}_2 - \text{CH$$

- RN 767277-20-3 CAPLUS
- CN Piperazine, 1-[3-[1,1'-bipheny1]-4-y1-3-[4-(trifluoromethy1)phenoxy]propy1]-4-(2-methoxypheny1)- (CA INDEX NAME)

- RN 777843-82-0 CAPLUS
- CN Piperazine, 1-(2-methoxyphenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

REFERENCE COUNT:

31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:767635 CAPLUS

DOCUMENT NUMBER: 149:324283

TITLE: Quantitative structure-affinity relationship of 5-HT1A

receptor ligands by the classification tree method AUTHOR(S): Kuz'min, V. E.; Polischuk, P. G.; Artemenko, A. G.;

Makan, S. Yu.; Andronati, S. A.

CORPORATE SOURCE: A.V. Bogatsky Physical-Chemical Institute, National
Academy of Sciences of Ukraine, Odessa, Ukraine

SOURCE: SAR and QSAR in Environmental Research (2008),

19(3-4), 213-244

CODEN: SQERED; ISSN: 1062-936X
PUBLISHER: Taylor & Francis Ltd.

PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: English

AB The influence of mol. structure of 346 ligands on their affinity for 5-HTIA receptors was investigated. It was shown that the effectiveness of the proposed novel approach for interpretation of decision tree models compared favorably with the PLS method. In the context of the proposed approach, mol. fragments and their values of the relative influence on the affinity for 5-HTIA receptors were defined.

I 328248-15-3 328248-21-1 328248-23-3 328248-24-4 328248-30-2 328248-36-8 753439-74-6 767277-20-3 777843-82-0

RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study)

(quant. structure-affinity relationship of 5-HT1A receptor ligands by the classification tree method)

RN 328248-15-3 CAPLUS

CN Piperazine, 1-(4-chlorophenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxylpropyl]- (CA INDEX NAME)

RN 328248-21-1 CAPLUS

CN Piperazine, 1-(4-methoxyphenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

$$\stackrel{\text{MeO}}{\longrightarrow} \stackrel{\text{N}}{\longrightarrow} \text{CH}_2 - \text{CH}_2 - \text{CH} - \text{O}$$

RN 328248-23-3 CAPLUS

CN Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1piperazinyl]- (CA INDEX NAME)

328248-24-4 CAPLUS RN

CN Piperazine, 1-(2-chlorophenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy[propyl]- (CA INDEX NAME)

$$\begin{array}{c} \text{C1} & \text{Ph} \\ \text{N---} \text{CH}_2\text{---} \text{CH}_2\text{---} \text{CH---} \\ \end{array}$$

RN

328248-30-2 CAPLUS Piperazine, 1-(4-nitrophenyl)-4-[3-phenyl-3-[4-CN (trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

328248-36-8 CAPLUS RN

CN Piperazine, 1-(2-methoxyphenyl)-4-[3-(4-methoxyphenyl)-3-[4-(trifluoromethyl)phenoxy[propyl]- (CA INDEX NAME)

$$\begin{array}{c} \text{OMe} \\ \\ \text{F}_3\text{C} \\ \\ \text{O-CH-CH}_2\text{-CH}_2\text{--N} \end{array}$$

RN 753439-74-6 CAPLUS

Piperazine, 1-(4-fluorophenvl)-4-[3-phenvl-3-[4-CN (trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

767277-20-3 CAPLUS RN

Piperazine, 1-[3-[1,1'-biphenyl]-4-yl-3-[4-CN

(trifluoromethyl)phenoxy]propyl]-4-(2-methoxyphenyl)- (CA INDEX NAME)

777843-82-0 CAPLUS Piperazine, 1-(2-methoxyphenyl)-4-[3-phenyl-3-[4-CN (trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

$$\begin{array}{c|c} \text{OMe} & \text{Ph} & \text{CF}; \\ \hline \text{OMe} & \text{N} - \text{CH}_2 - \text{CH}_2 - \text{CH} - \text{O} \\ \end{array}$$

REFERENCE COUNT:

25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:232006 CAPLUS

DOCUMENT NUMBER: 148 • 440268

TITLE: A chemometric study of the 5-HT1A receptor affinities

presented by arylpiperazine compounds AUTHOR(S): Weber, Karen C.; da Silva, Alberico B. F.

CORPORATE SOURCE: Instituto de Quimica de Sao Carlos, Universidade de

Sao Paulo, Sao Carlos, 13566-590, Brazil SOURCE: European Journal of Medicinal Chemistry (2008), 43(2),

364-372

CODEN: EJMCA5; ISSN: 0223-5234 PUBLISHER: Elsevier Masson SAS

DOCUMENT TYPE: Journal

LANGUAGE:

- English Arylpiperazine compds. are promising 5-HT1A receptor ligands that can contribute for accelerating the onset of therapeutic effect of selective serotonin reuptake inhibitors. In the present work, the chemometric methods HCA, PCA, KNN, SIMCA and PLS were employed in order to obtain SAR and OSAR models relating the structures of arylpiperazine compds. to their 5-HT1A receptor affinities. A training set of 52 compds. was used to construct the models and the best ones were obtained with nine topol. descriptors. The classification and regression models were externally validated by means of predictions for a test set of 14 compds. and have presented good quality, as verified by the correctness of classifications, in the case of pattern recognition studies, and by the high correlation coeffs. (q2 = 0.76, r2 = 0.83) and small prediction errors for the PLS regression. Since the results are in good agreement with previous SAR studies, we can suggest that these findings can help in the search for 5-HT1A receptor ligands that are able to improve antidepressant treatment.
- 328248-21-1 328248-23-3 328248-24-4 328248-30-2 328248-36-8 753439-74-6

767277-20-3 777843-82-0

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chemometric study of 5-HT1A receptor affinities presented by arylpiperazine compds. as possible antidepressants)

RN 328248-21-1 CAPLUS CN

Piperazine, 1-(4-methoxyphenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxylpropyll- (CA INDEX NAME)

328248-23-3 CAPLUS RN

Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1-CN piperazinvl]- (CA INDEX NAME)

RN 328248-24-4 CAPLUS

CN Piperazine, 1-(2-chlorophenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

328248-30-2 CAPLUS Piperazine, 1-(4-nitrophenyl)-4-[3-phenyl-3-[4-CN (trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

RN 328248-36-8 CAPLUS

CN Piperazine, 1-(2-methoxyphenyl)-4-[3-(4-methoxyphenyl)-3-[4-(trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

RN 753439-74-6 CAPLUS

Piperazine, 1-(4-fluorophenyl)-4-[3-phenyl-3-[4-CN (trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

767277-20-3 CAPLUS RN

Piperazine, 1-[3-[1,1'-biphenyl]-4-yl-3-[4-CN

(trifluoromethyl)phenoxy]propyl]-4-(2-methoxyphenyl)- (CA INDEX NAME)

777843-82-0 CAPLUS Piperazine, 1-(2-methoxyphenyl)-4-[3-phenyl-3-[4-CN (trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

$$\begin{array}{c|c} \text{OMe} & \text{ph} & \text{CF}; \\ \hline \text{OMe} & \text{N} - \text{CH}_2 - \text{CH}_2 - \text{CH} - \text{O} \\ \end{array}$$

REFERENCE COUNT:

35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:847178 CAPLUS

DOCUMENT NUMBER: 145:410017

TITLE: Synthesis of benzenepropanamine analogues as non-detergent spermicides with antitrichomonas and

anticandida activities

AUTHOR(S): Kumar, S. T. V. S. Kiran; Sharma, Vishnu Lal; Kumar, Manish; Shukla, Praveen Kumar; Tiwari, Pratibha; Jain, Rajeev Kumar; Maikhuri, Jaqdamba Prasad; Singh, Diyya;

Gupta, Gopal; Singh, Man Mohan

CORPORATE SOURCE: Division of Medicinal and Process Chemistry, Central Drug Research Institute, Lucknow, 226001, India

SOURCE: Bioorganic & Medicinal Chemistry (2006), 14(19), 6593-6600

CODEN: BMECEP: ISSN: 0968-0896

PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 145:410017

GI

Ι

AB Fifteen analogs of benzenepropanamine were synthesized and evaluated for their spermicidal as well as microbicidal activities against Trichomonas vaginalis and Candida spp. Several compds. showed appreciable dual activities. Compound I exhibited good spermicidal (MEC = 0.1%) along with substantial anticandidal (MIC = 0.05%) activities, while compds. 3 and 6 showed significant microbicidal activities with moderate spermicidal effect. The SAR of these structures is being discussed here in this communication. It is concluded that suitable structural modifications in this class of compds. at 3-amino position may lead to a potent spermicide with associated microbicidal activity.

IT 911811-07-9P 911811-08-0P 911811-09-1P

911811-11-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(benzenepropanamine analogs as non-detergent spermicides with antitrichomonas and anticandida activities)

RN 911811-07-9 CAPLUS

CN Piperazine, 1-methyl-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-, hydrochloride (1:2) (CA INDEX NAME)

●2 HC1

RN 911811-08-0 CAPLUS

CN Piperazine, 1-(3-chlorophenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-, hydrochloride (1:1) (CA INDEX NAME)

HC1

RN 911811-09-1 CAPLUS

CN Piperazine, 1-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-4-[3-(trifluoromethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

$$\begin{array}{c} \text{Ph} \\ \text{N-CH}_2\text{-CH}_2\text{-CH-O} \end{array}$$

● HCl

RN 911811-11-5 CAPLUS

CN Pyrimidine, 2-[4-[3-pheny1-3-[4-(trifluoromethy1)phenoxy]propy1]-1-

piperazinyl]-, hydrochloride (1:2) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} & \text{CF} \\ & \text{N} & \text{N} - \text{CH}_2 - \text{CH}_2 - \text{CH} - \text{O} \end{array}$$

●2 HC1

REFERENCE COUNT:

34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1289687 CAPLUS

DOCUMENT NUMBER: 144:51568

TITLE: Preparation of substituted 2-quinolyl-oxazoles and their heterocyclic analogs useful as pde4 inhibitors INVENTOR(S): Kuang, Rongze; Blythin, David; Shih, Neng-Yang; Shue,

Ho-Jane; Chen, Xiao; Cao, Jianhua; Gu, Danlin; Huang, Ying; Schwerdt, John H.; Ting, Pauline C.; Wong,

Shing-Chun; Xiao, Li

PATENT ASSIGNEE(S): Schering Corporation, USA SOURCE: PCT Int. Appl., 233 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | | | | | | | KIND DATE | | | APPLICATION NO. | | | | | | | | | | |
|----------|---|------|-----|-----|--------------------------|------|-----------------|------|-----------------|-----------------|--------|----------|----------|-----|-----|------|-----|--|--|--|
| | | | | | | | | | WO 2005-US17134 | | | | | | | | | | | |
| | W: AE, AG | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | EC, | | | | | | | | | |
| | | | | | | | | | | | JP. | | | | | | | | | |
| | | | | | | | | | | | MG, | | | | | | | | | |
| | | | | | | | | | | | RO. | | | | | | | | | |
| | | | | | | | | | | | UA, | | | | | | | | | |
| | ZA, ZM, S | | | | , | , | | , | , | | , | | | | , | , | , | | | |
| | RW: | | | | KE, | LS, | MW, | MZ, | NA, | SD. | , SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | | | |
| | | AZ, | BY, | KG, | KZ, | MD, | RU, | TJ, | TM, | AT. | , BE, | BG, | CH, | CY, | CZ, | DE, | DK, | | | |
| | | | | | | | | | | | , IT, | | | | | | | | | |
| | | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | , CI, | CM, | GA, | GN, | GQ, | GW, | ML, | | | |
| | | MR, | NE, | SN, | TD, | TG | | | | | | | | | | | | | | |
| AU | 2005 | 2479 | 06 | | A1 | | 2005 | 1208 | | AU 2 | 2005- | 2479 | 20050516 | | | | | | | |
| CA | 2565 | 599 | | | A1 20051208 | | | | | CA 2 | 2005- | 2565 | 20050516 | | | | | | | |
| US | 2006 | 0106 | 062 | | A1 20060518 | | | | | US 2 | 2005- | 1303 | 20050516 | | | | | | | |
| EP | 1758 | 883 | | | A1 20070307 | | | | EP 2 | 2005- | 7500 | 20050516 | | | | | | | | |
| | R: AT, BE, BG | | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | , ES, | FΙ, | FR, | GB, | GR, | HU, | ΙE, | | | | |
| | | | | | | LU, | MC, | NL, | PL, | PT, | , RO, | SE, | SI, | SK, | TR, | AL, | BA, | | | |
| | HR, LV, MK, | | | | | | | | | | | | | | | | | | | |
| CN | 1984 | 901 | | | A | 2007 | 0620 | | CN 2 | 2005- | 8002 | 20050516 | | | | | | | | |
| BR | BR 2005011295 | | | | | | 2007 | 1204 | | BR 2 | 2005- | 1129 | 20050516 | | | | | | | |
| JP | CN 1984901 BR 2005011295 JP 2007537300 TW 286475 | | | | | | 2007 | 1220 | | JP : | 2007- | 5134 | 20050516 | | | | | | | |
| TW | 2864 | 75 | | | В | | 2007 | 0911 | | TW 2 | 2005- | 9411 | 20050517 | | | | | | | |
| MX | 2006 | 0134 | 14 | | A | 2007 | 0123 | | MX 2 | 2006- | 1341 | 20061117 | | | | | | | | |
| | | | 06 | | A 20070130 | | | | | KR 2 | 2006- | 7241 | 20061117 | | | | | | | |
| | | | 254 | | A 20070629 A 20070216 | | | | IN 2 | 2006- | CN42 | 20061117 | | | | | | | | |
| | NO 2006005830 | | | | | | A 20070216 | | | | 2006- | 5830 | 20061215 | | | 215 | | | | |
| PRIORIT: | RIORITY APPLN. INFO.: | | | | | | | | | US 2 | 2004- | 5722 | 66P | | P 2 | 0040 | 518 | | | |
| | | | | | | | WO 2005-US17134 | | | | | | | | W 2 | 0050 | 516 | | | |
| OTHER SO | HER SOURCE(S): | | | | | REAC | T 14 | 4:51 | 568; | MAI | RPAT : | В | | | | | | | | |

AB Title compds. I [R1 = H, alkyl, cycloalkyl; R2, R3 and R5 independently = H or halo; R4 = H, halo, alkyl, act; A = substituted oxazolyl, imidazole, thiazole or pyrrole], and their pharmaceutically acceptable salts, are prepared and disclosed as pde4 inhibitors. Thus, e.g., II was prepared in a multistep synthesis from 2-trifluoromethyl-8-methoxyquinolin-5-yl carboxylic acid. In PDE4 assays, selected compds. possessed IC50 values ranging from 0.01-1.8 nM. Also claimed are pharmaceutical compns., the use of the compds. as PDE4 inhibitors, and combinations with other actives.

T 871009-78-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted quinolyloxazoles and their heterocyclic analogs useful as PDE4 inhibitors)

RN 871009-78-8 CAPLUS CN Ethanone, 1-[4-[[5-

Ethanone, l-[4-[[5-[(18)-1-aminoethyl]-2-[8-methoxy-2-(trifluoromethyl)-5-quinolinyl]-4-oxazolyl]carbonyl]-1-piperazinyl]-2-(4-chlorophenoxy)-2-phenyl-, hydrochloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.

HC1

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1143268 CAPLUS

DOCUMENT NUMBER: 144:63874

TITLE: Design and synthesis of long-chain arylpiperazines with mixed affinity for serotonin transporter (SERT)

and 5-HT1A receptor

AUTHOR(S): Perrone, Roberto; Berardi, Francesco; Colabufo, Nicola

A.; Lacivita, Enza; Larizza, Carmela; Leopoldo,

Marcello; Tortorella, Vincenzo

CORPORATE SOURCE: Dipartimento Farmaco-Chimico, Universita degli Studi

di Bari, Bari, 70125, Italy

SOURCE: Journal of Pharmacy and Pharmacology (2005), 57(10),

1319-1327

CODEN: JPPMAB; ISSN: 0022-3573
PUBLISHER: Pharmaceutical Press

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:63874

OTHER SOURCE(S): CASREACT 144:638/4

AB A new generation of antidepressant agents could be represented by compds.
with mixed activity as serotonin transporter (SBRT) inhibitors and 5-HTIA
receptor antagonists. We report here on the synthesis and evaluation of
SERI and 5-HTIA receptor affinity of long-chain arylpiperazines obtained
either by modifying 6-nitroquipazine into a long-chain arylpiperazine or
by inserting a modified 6-nitroquipazine moiety or other structures
endowed with SERI affinity into a long-chain arylpiperazine with 5-HTIA
affinity. Among the compds. studied,
2-(4-(2-methoxyothenyl)piperazin-1-vll-N-(6-nitro-2-quinolyl)ethylamine

(21) and 1-(5-bromo-1,2,3,4-tetrahydronaphthalen-1-yl)-3-[4-(2-methoxyphenyl)-piperazin-1-yl]-1-propanone (24) showed good affinity values for SERT and 5-HTlA receptors (SERT: Ki (inhibition constant) = 71.8 and 62.8 nM, 5-HTlA Ki = 14.2 and 0.82 nM, resp.).

and 62.8 nM; 5-HT1A Ki = 14.2 and 0.82 nM, resp.)
T 871739-17-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(arylpiperazines with mixed affinity for serotonin transporter and 5-HT1A receptor)

RN 871739-17-2 CAPLUS

CN Piperazine, 1-phenyl-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-, hydrochloride (1:2) (CA INDEX NAME)

●2 HC1

IT 777843-82-0

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(arylpiperazines with mixed affinity for serotonin transporter and

5-HT1A receptor)

RN

777843-82-0 CAPLUS
Piperazine, 1-(2-methoxyphenyl)-4-[3-phenyl-3-[4-CN (trifluoromethyl)phenoxy[propyl]- (CA INDEX NAME)

REFERENCE COUNT:

29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1103625 CAPLUS

DOCUMENT NUMBER: 143:387060

TITLE: Preparation of piperazine or piperidine derivatives as

serotonin reuptake inhibitors

INVENTOR(S): Pinney, Kevin G.; Miranda, Maria Graciela; Dorsey,

James Michael

Baylor University, USA PATENT ASSIGNEE(S):

SOURCE:

GI

PCT Int. Appl., 52 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PA | TENT | | | | KIN | D | DATE | | | APPLICATION NO. | | | | | | DATE | | | |
|---------|---|---|---|--|---|---|---|---|--|--|--|--|--|--|--|--|--|----|--|
| | 2005 | A2 20051013 A3 20070503 | | | WO 2005-US10356 | | | | | | 20050328 | | | | | | | | |
| WO | W: | AE, CN, GE, LK, NO, SY, BW, AZ, EE, | AG, CO, GH, LR, NZ, TJ, GH, BY, ES, | AL, CR, GM, LS, OM, TM, GM, KG, | AM, CU, HR, LT, PG, TN, KE, KZ, FR, | AT, CZ, HU, LU, PH, TR, LS, MD, GB, | AU, DE, ID, LV, PL, TT, MW, RU, GR, | AZ, DK, IL, MA, PT, TZ, MZ, TJ, HU, | DM, IN, MD, RO, UA, NA, TM, IE, | DZ, IS, MG, RU, UG, SD, AT, IS, | EC, JP, MK, SC, US, SL, BE, IT, | EE, KE, MN, SD, UZ, SZ, BG, LT, | EG, KG, MW, SE, VC, TZ, CH, LU, | ES, KP, MX, SG, VN, UG, CY, MC, | FI, KR, MZ, SK, YU, ZM, CZ, NL, | GB, KZ, NA, SL, ZA, ZW, DE, PL, | GD, LC, NI, SM, ZM, AM, DK, PT, | ZW | |
| ro. | 1732 | MR, | NE, | SN, | TD, | TG, | BF, AP, | EA, | EP, | OA | | | | | | | | | |
| | | AT, IS, | BE, | BG, LI, | CH, LT, | CY, | CZ, MC, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | | |
| | US 20080132514 RIORITY APPLN. INFO.: | | | | | | 2008 | 0605 | | US 2 US 2 WO 2 | 004- | 5570 | 69P | | P 2 | 0070: 0040: 0050: | 326 | | |
| OTHER S | OTHER SOURCE(S): | | | | | | CASREACT 143:387060; MARPAT 143:387060 | | | | | | | | | | | | |

AB Title compds. I [X = F or CF3; Y = (CH2)n; n = 0-1; A = N or C; Ar = aryl] and their pharmaceutically acceptable salts, are prepared and disclosed as serotonin reuptake inhibitors. Thus, e.g., II was prepared by reduction of 1-phenyl-3-(4-phenyl-piperazin-1-yl)-propan-1-ol (preparation given) using sodium borohydride followed by coupling with 4-fluorophenol. The ability of I to inhibit [3H]5-HT uptake was evaluated using liquid scintillation spectroscopy and it was revealed that selected compds. of the invention possessed IC50 values in the range of 1.45 up to 9.56 µM. I as serotonin reuptake inhibitors should prove useful in the treatment of depression. Pharmaceutical composition comprising I are disclosed.

II

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IT 158345-85-8P 691872-55-7P 691872-58-9P 691872-64-7P 691872-60-3P 691872-62-3P 691872-62-3P 691872-64-7P 691872-66-9P 866548-21-2P 866548-22-3P 866548-22-4P 866548-24-5P 866548-22-3P 866548-26-7P 866548-30-3P 866548-28-9P 866548-32-5P 866548-33-5P 866548-33-6P 866548-37-6P 86
```

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazine or piperidine derivs. as serotonin reuptake inhibitors)

- RN 158545-85-8 CAPLUS
- CN Piperazine, 1-phenyl-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl](CA INDEX NAME)

RN 691872-56-7 CAPLUS

CN Piperazine, 1-(3-chlorophenyl)-4-[2-(4-fluorophenoxy)-2-phenylethyl]- (CA INDEX NAME)

691872-58-9 CAPLUS
Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(2-methoxyphenyl)-CN (CA INDEX NAME)

$$\begin{array}{c|c} \text{OMe} & \text{Ph} \\ \hline & \text{N} - \text{CH}_2 - \text{CH} - \text{O} \end{array}$$

RN 691872-60-3 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)

$$^{\rm F3C} \stackrel{\rm Ph}{\longrightarrow} ^{\rm N-CH_2-CH-O}$$

691872-62-5 CAPLUS RN

Piperazine, 1-(3-chlorophenyl)-4-[2-(4-fluorophenoxy)-2-phenylethyl]-, CN hydrochloride (1:1) (CA INDEX NAME)

● HC1

RN 691872-64-7 CAPLUS
CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(2-methoxyphenyl)-,
hydrochloride (1:1) (CA INDEX NAME)

$$\stackrel{\text{OMe}}{\underset{N}{\longrightarrow}} \text{N---} \text{CH}_2\text{---} \text{CH---} \text{O}$$

● HCl

RN 691872-66-9 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-[3-(trifluoromethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

$$\begin{array}{c} \text{Ph} \\ \text{F}_3\text{C} \\ \text{N} \end{array} \begin{array}{c} \text{Ph} \\ \text{CH}_2\text{-CH-O} \end{array} \begin{array}{c} \text{F} \\ \text{CH}_3 \end{array}$$

● HCl

RN 866548-21-2 CAPLUS

CN Piperazine, 1-[3-(4-fluorophenoxy)-3-phenylpropyl]-4-phenyl- (CA INDEX NAME)

- 866548-22-3 CAPLUS RN
- Piperazine, 1-[3-(4-fluorophenoxy)-3-phenylpropyl]-4-phenyl-, CN hydrochloride (1:1) (CA INDEX NAME)

● HC1

- 866548-23-4 CAPLUS
 Piperazine, 1-phenyl-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-, CN hydrochloride (1:1) (CA INDEX NAME)

HC1

- 866548-24-5 CAPLUS
- CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-phenyl- (CA INDEX NAME)

- RN 866548-25-6 CAPLUS
- Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-phenyl-, hydrochloride CN (1:1) (CA INDEX NAME)

HC1

RN 866548-26-7 CAPLUS

CN Piperazine, 1-(3-chlorophenyl)-4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]- (CA INDEX NAME)

RN 866548-27-8 CAPLUS CN Piperazine, 1-(3-ch.

N Piperazine, 1-(3-chlorophenyl)-4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 866548-28-9 CAPLUS

CN Piperazine, 1-(2-methoxyphenyl)-4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]- (CA INDEX NAME)

- RN 866548-29-0 CAPLUS
- CN Piperazine, 1-(2-methoxypheny1)-4-[2-pheny1-2-[4-(trifluoromethy1)phenoxy]ethy1]-, hydrochloride (1:1) (CA INDEX NAME)

HCl

- RN 866548-30-3 CAPLUS
- CN Piperazine, 1-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-4-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)

$$\begin{array}{c} & \text{Ph} \\ \text{F3C} \\ & \text{N} \\ \end{array} \begin{array}{c} \text{CH}_2 \\ \text{CH} \\ \text{O} \\ \end{array}$$

- RN 866548-31-4 CAPLUS
- CN Piperazine, 1-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-4-[3-(trifluoromethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

$$F_3C \longrightarrow N - CH_2 - CH - O - CF_2$$

● HCl

- RN 866548-32-5 CAPLUS

10/513699

$$\begin{array}{c|c} & & & \\ & N & & \\ & N & & \\ & N & & \\ \end{array}$$

RN 866548-33-6 CAPLUS

CN Pyrimidine, 2-[4-[2-(4-fluorophenoxy)-2-phenylethyl]-1-piperazinyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

- RN 866548-34-7 CAPLUS
- CN Pyrimidine, 2-[4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-1piperazinyl]- (CA INDEX NAME)

- RN 866548-35-8 CAPLUS
- CN Pyrimidine, 2-[4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-1-piperazinyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 866548-36-9 CAPLUS

<12/04/2007>

CN Piperazine, 1-pheny1-4-[2-pheny1-2-[4-(trifluoromethy1)phenoxy]ethy1]-(CA INDEX NAME)

- RN 866548-37-0 CAPLUS
- CN Piperazine, 1-phenyl-4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HC1

- RN 866548-38-1 CAPLUS
- CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-methyl- (CA INDEX NAME)

- RN 866548-39-2 CAPLUS
- CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-methyl-, hydrochloride (1:1) (CA INDEX NAME)

$$\begin{array}{c} \text{Ph} \\ \text{O-CH-CH}_2 \\ \text{N} \end{array}$$

HC1

- RN 866548-40-5 CAPLUS
- CN Piperazine, 1-methyl-4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-(CA INDEX NAME)

- RN 866548-41-6 CAPLUS
- CN Piperazine, 1-methyl-4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HC1

- RN 866548-42-7 CAPLUS
- CN Methanone, [1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-piperidinyl](4-fluorophenyl)- (CA INDEX NAME)

- RN 866548-43-8 CAPLUS
- CN Methanone, [1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-piperidinyl](4-fluorophenyl)-, hydrochloride (1:1) (CA INDEX NAME)

HC1

- RN 866548-44-9 CAPLUS
- CN Methanone, (4-fluorophenyl)[1-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-4-piperidinyl]- (CA INDEX NAME)

RN 866548-45-0 CAPLUS

CN Methanone, (4-fluorophenyl)[1-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-4-piperidinyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

L13 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:170822 CAPLUS

DOCUMENT NUMBER: 140:417233

TITLE: Synthesis and biological evaluation of

2-(4-fluorophenoxy)-2-phenyl-ethyl piperazines as serotonin-selective reuptake inhibitors with a potentially improved adverse reaction profile

AUTHOR(S): Dorsey, James M.; Miranda, Maria G.; Cozzi, Nicholas

V.; Pinney, Kevin G.

CORPORATE SOURCE: Department of Chemistry and Biochemistry and The Center for Drug Discovery, Baylor University, Waco,

TX, 76798-7348, USA

SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(6),

1483-1491

CODEN: BMECEP; ISSN: 0968-0896
UBLISHER: Elsevier Ltd.

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:417233

AB Three new 2-(4-fluorophenoxy)-2-phenyl-Et piperazines,

1-(3-chlorophenv1)-4-[2-(4-fluorophenoxy)-2-phenvlethv1]-piperazine, 1-(2-(4-fluorophenoxy)-2-phenylethyl)-4-(2-methoxyphenyl)-piperazine, and 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(3-trifluoromethylphenyl)piperazine, modeled after the potent antidepressant fluoxetine and coupled with several functionalized piperazines, have been prepared by chemical synthesis as selective serotonin reuptake inhibitors (SSRIs) with a potentially improved adverse reaction profile. Typical SSRIs, although very effective in the treatment of depression, still face the troublesome side effect of sexual dysfunction. A number of pharmacol. agents-notably, drugs in the piperazine class-have been used to reverse SSRI-induced sexual dysfunction, and evidence for developing an improved SSRI by coupling a fluoxetine congener with the pharmacophore of a reversal agent holds promise. Preliminary data indicates that the hydrochloride (HCl) salts of piperazines exhibit single-site binding at the site of the serotonin reuptake transporter (SERT). However, each of the three compds. are much less potent than typical SSRIs, showing micromolar (µM) affinity for the SERT with IC50 values of 1.45 µM, 3.27 µM, and 9.56 μM, resp. Further biol. evaluation of piperazine compds. is needed

pum, resp. further biol. evaluation of piperazine compos. Is needed before definitive conclusions can be made with regard to each compound's potential for use as an SSRI-type candidate which is devoid of sexual side effects. Nevertheless, the initial findings are quite encouraging, thus lending credence to the idea of hybridizing an SSRI congener with that of the pharmacophore of an agent known to reverse or treat SSRI-induced sexual dvsfunction.

IT 691872-62-5P 691872-64-7P 691872-66-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis and structure-activity relationship of

2-(4-fluorophenoxy)-2-Ph-Et piperazines as serotonin-selective reuptake inhibitors with a potentially improved adverse reaction profile)

RN 691872-62-5 CAPLUS

CN Piperazine, 1-(3-chlorophenyl)-4-[2-(4-fluorophenoxy)-2-phenylethyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

hydrochloride (1:1) (CA INDEX NAME)

RN 691872-64-7 CAPLUS
CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(2-methoxyphenyl)-,

OMe N—CH2-CH-O

● HCl

- RN 691872-66-9 CAPLUS
- CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-[3-(trifluoromethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

$$\begin{array}{c} \text{Ph} \\ \text{F_3C} \\ \text{N} \\ \text{CH}_2 \\ \text{CH} \\ \text{O} \\ \end{array}$$

● HCl

IT 691872-56-7P 691872-58-9P 691872-60-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and structure-activity relationship of 2-(4-fluorophenoxy)-2-Ph-Et piperazines as serotonin-selective reuptake inhibitors with a potentially improved adverse reaction profile)

RN 691872-56-7 CAPLUS

<12/04/2007>

CN Piperazine, 1-(3-chlorophenyl)-4-[2-(4-fluorophenoxy)-2-phenylethyl]- (CA INDEX NAME)

RN 691872-58-9 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(2-methoxyphenyl)-(CA INDEX NAME)

$$\stackrel{\text{OMe}}{\underset{N}{\longrightarrow}} \text{CH}_2\text{-CH-O}$$

RN 691872-60-3 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} & \\ & \text{F3C} & \\ & \text{N} & \text{CH}_2\text{-CH-O} \end{array}$$

REFERENCE COUNT:

14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:860624 CAPLUS

DOCUMENT NUMBER: 140:76994

TITLE: Syntheses and Binding Studies of New

[(Aryl)(aryloxy)methyl]piperidine Derivatives and Related Compounds as Potential Antidepressant Drugs

with High Affinity for Serotonin (5-HT) and

Norepinephrine (NE) Transporters AUTHOR(S):

Orjales, Aurelio; Mosquera, Ramon; Toledo, Antonio; Pumar, M. Carmen; Garcia, Neftali; Cortizo, Lourdes;

Labeaga, Luis; Innerarity, Ana

CORPORATE SOURCE: Research Department, FAES FARMA S. A., Leioa, Vizcava, 48940, Spain

SOURCE: Journal of Medicinal Chemistry (2003), 46(25),

5512-5532

CODEN: JMCMAR; ISSN: 0022-2623 PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:76994

AB In a wide search program toward new, efficient, and fast-acting antidepressant drugs, series of new compds. having an (arvl) (arvloxy) methyl moiety linked directly or through a methylene chain to different substituted and unsubstituted cycles (isoquinoline, piperazine, piperidine, tetrahydropyran, or cyclopentane) were prepared These compds, have been evaluated for their affinities for serotonin (5-HT) transporter (SERT) and 5-HT1A and 5-HT2A receptors. Racemic mixts. of 4-[(aryl)(aryloxy)methyl]piperidines I (R1 = H, Me, MeCO; R2 = H, 3-F, 4-F, 4-C1, 4-Me; R3 = H, 2-CN, 4-O2N, 4-MeO, 2-Ph, etc.) showed much higher affinity values for SERT than fluoxetine and resulted in lack of affinity for 5-HT1A and 5-HT2A receptors. Some of these racemic mixts. were resolved to their enantiomers and tested for binding to norepinephrine (NE) transporter (NET), dopamine (DA) transporter (DAT), and $\alpha 2$ receptor. Several of these enantiomers, (-)-I (R1 = R2 = H; R3 = 2-F), (-)-I (R1 = R2 = H; R3 = 3-F), (-)-I (R1 = H; R2 = 3-F; R3 = 2-F), (+)-I (R1 = H; R2 = R3 = 3-F), displayed a dual binding profile with affinities for SERT and NET with Ki < 25 nM and a NET/SERT ratio <10. (-)-I (R1 = R2 = H; R3 = 3-F) (coded as F-98214-TA for development studies) showed a dual binding profile with very high affinity values for SERT and NET (Ki = 1.9 and 13.5 nM, resp.), and further pharmacol. characterization is in progress for its evaluation as a antidepressant. 639467-63-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of [(aryl)(aryloxy)alkyl]piperidines and analogs as potential antidepressants with high affinity for serotonin and norepinephrine transporters)

RN 639467-63-3 CAPLUS

CN Methanone, [1-[3-(2-fluorophenoxy)-3-phenylpropyl]-4-piperidinyl](4-fluorophenyl)-, hydrochloride (1:1) (CA INDEX NAME)

HC1

REFERENCE COUNT:

40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:636031 CAPLUS

DOCUMENT NUMBER: 135:210828

TITLE: Preparation of novel phenylheteroalkylamines as

inhibitors of nitric oxide synthase

INVENTOR(S): Birkinshaw, Tim; Cheshire, David; Mete, Antonio

PATENT ASSIGNEE(S): Astrazeneca AB, Swed. SOURCE:

PCT Int. Appl., 88 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Pat.ent.

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

| PA | PATENT NO. | | | | KIND DA | | DATE | | AP | | PPLICATION NO. | | | | DATE | | |
|---------|---------------|------|--------|-----|---------|-----|------|---------------|-----|------|----------------|------|--------|-----|------|------|-----|
| WO | 2001 | 0627 | 13 | | A1 | _ | 2001 | 0830 | | WO 2 | 2001- | SE37 | 0 0 | | 2 | 0010 | 220 |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, |
| | | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, |
| | | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | LK, | LR, | LS, | LT, |
| | | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | PL, | PT, | RO, | RU, |
| | | SD, | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VN, |
| | | YU, | ZA, | ZW | | | | | | | | | | | | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZW, | AT, | BE, | CH, | CY, |
| | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | IE, | IT, | LU, | MC, | NL, | PT, | SE, | TR, | BF, |
| | | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GW, | ML, | MR, | NE, | SN, | TD, | TG | | |
| AU | AU 2001034313 | | | | | | 0903 | AU 2001-34313 | | | | | | | | | |
| EP | 1263 | 714 | | | A1 | | 2002 | 1211 | | EP 2 | 2001- | 9064 | 90 | | 2 | 0010 | 220 |
| EP | 1263 | 714 | | | B1 | | 2004 | 0428 | | | | | | | | | |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR | | | | | | |
| JP | 2003 | 5239 | 92 | | T | | 2003 | 0812 | | JP 2 | 2001- | 5617 | 23 | | 2 | 0010 | 220 |
| AT | 2654 2003 | 22 | | | T | | 2004 | 0515 | | AT 2 | 2001- | 9064 | 90 | | 2 | 0010 | 220 |
| US | 2003 | 0105 | 161 | | A1 | | 2003 | 0605 | | US 2 | 2002- | 2048 | 15 | | 2 | 0020 | 822 |
| US | 6743 | 939 | | | B2 | | 2004 | 0601 | | | | | | | | | |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | GB 2 | -0009 | 4149 | | | A 2 | 0000 | 223 |
| | | | | | | | | | | WO 2 | 2001- | SE37 | 0 | | W 2 | 0010 | 220 |
| OTHER S | OURCE | (S): | | | MAR | PAT | 135: | 2108 | 28 | | | | | | | | |

$$z = \bigvee_{Y}^{X} \bigvee_{NR^{1}R^{2}}$$

AB The title compds. [I; X, Y = alkyl, alkoxy, halo, etc.; Z = H, F; V = O, SOn, NR3; W = alkyl, alkenyl, Ph, etc.; R1, R2 = H, alkyl, cycloalkyl, etc.; NR1R2 = (un)substituted 4-8 membered saturated azacyclic ring optionally

incorporating one further heteroatom selected from O, S or NR8, 5-membered aromatic azacyclic ring optionally incorporating one further N atom; R3 = H, alkyl; R8 = H, alkyl, etc.; n = 0-2] and their pharmaceutically acceptable salts which are inhibitors of nitric oxide synthase and are thereby particularly useful in the treatment or prophylaxis of inflammatory disease and pain, were prepared E.g., a 4-step synthesis of (IR)-I.oxalate [X = Cl; Y = CN; Z = H; V = O; W = Ph; R1 = H; R2 = Me] was given. The exemplified compds. I (with the exception of one) showed IC50 of < 40 μM against nitric oxide synthase.

IT 357443-66-4P

CN

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of novel phenylheteroalkylamines as inhibitors of nitric oxide synthase)

RN 357443-66-4 CAPLUS

1-Piperazinecarboxylic acid, 4-[4-(2,5-dichlorophenoxy)-4-phenylbutyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

REFERENCE COUNT:

13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:636023 CAPLUS

DOCUMENT NUMBER: 135:210827

TITLE: Preparation of phenylheteroalkylamines as inhibitors

of nitric oxide synthase

INVENTOR(S): Cheshire, David; Connolly, Stephen; Cox, David;

Hamley, Peter; Mete, Antonio; Pimm, Austen

PATENT ASSIGNEE(S): Astrazeneca AB, Swed. PCT Int. Appl., 135 pp.

SOURCE:

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PA | | | | | KIND | | | | | APPLICATION NO. | | | | | DATE | | |
|---------------|---------------|------|------|-------------|------------|-----|----------------|---|----------------|-----------------|----------|----------|----------|----------|------|------|-----|
| WO | 2001062704 | | | A1 20010830 | | | WO 2001-SE373 | | | | | | 20010220 | | | | |
| | | | | | | | | | | | | , BR, | | | | | |
| | | CR. | CU. | CZ. | DE. | DK. | DM. | DZ. | EE. | ES | . FI | , GB, | GD, | GE, | GH. | GM. | HR. |
| | | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP | , KR | , KZ, | LC, | LK, | LR, | LS, | LT, |
| | | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX | , MZ | , NO, | NZ, | PL, | PT, | RO, | RU, |
| | | SD, | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TF | , TT | , TZ, | UA, | UG, | US, | UZ, | VN, |
| | | YU, | ZA, | ZW | | | | | | | | | | | | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ | , TZ | , UG, | ZW, | AT, | BE, | CH, | CY, |
| | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | IE, | II | , LU | , MC, | NL, | PT, | SE, | TR, | BF, |
| | | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GW, | ML | , MR | , NE, | SN, | TD, | TG | | |
| CA | 2397 | 234 | | | A1 | | 2001 | 0830 | | CA | 2001 | -2397 | 234 | | 2 | 0010 | 220 |
| | 2001 | | | | | | | | | | | | | | | | |
| EP 1263711 A1 | | | A1 | A1 20021211 | | | EP 2001-906492 | | | | 20010220 | | | | | | |
| EP | 1263 | 711 | | | B1 | | 2004 | 1215 | | | | | | | | | |
| | R: | | | | | | | | | | | | LU, | NL, | SE, | MC, | PT, |
| | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | ΑL | , TR | | | | | | |
| JP | JP 2003523988 | | | | T | | 2003 | 0812 | | JP 2001-561714 | | | | | 2 | 0010 | 220 |
| AT 284860 | | | | T 20050115 | | | 0115 | | AT 2001-906492 | | | | | 20010220 | | | |
| AU 781141 | | | | B2 20050505 | | | AU 2001-34315 | | | | | 20010220 | | | | | |
| CN | 1235 | 870 | | | C | | 2006 | 0111 | | CN | 2001 | -8054 | 89 | | 2 | 0010 | 220 |
| NZ | 5201 | 07 | | | A 20060224 | | | AT 2001-561714 AT 2001-906492 AU 2001-34315 CN 2001-805489 NZ 2001-520107 NO 2002-4014 | | | | 20010220 | | | | | |
| NO | 2002 | 0040 | 14 | | A | | 2002 | 0925 | | NO | 2002 | -4014 | | | 2 | 0020 | 822 |
| MA | 2002 | UU82 | U3 | | A 20021129 | | | MX 2002-8203 US 2002-204742 | | | | 20020822 | | | | | |
| US | 2003 | 0158 | 185 | | A1 | | 2003 | 0821 | | US | 2002 | -2047 | 42 | | 2 | 0021 | 018 |
| US | 6887 | 871 | | | B2 | | 2005 | 0503 | | | | | | | | | |
| IORIT | Y APP | LN. | INFO | . : | | | | | | | | -4153 | | | | | |
| | | | | | | | | | | WO | 2001 | -SE37 | 3 | | W 2 | 0010 | 220 |
| THER S | OURCE | (S): | | | MAR | PAT | 135: | 2108 | 27 | | | | | | | | |

$$z$$
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<12/04/2007> Erich Leese

Ι

- AR The title compds. [I; X, Y = alkyl, alkoxy, halo, etc.; Z = H, F; V = O; W = (un)substituted Ph, 5-6 membered aromatic heterocyclic ring containing 1-3 heteroatoms selected from O, S and N; R1, R2 = H, alkyl, cycloalkyl, etc.; or NR1R2 = (un)substituted 4-8 membered saturated azacyclic ring optionally incorporating one further heteroatom selected from O. S or NR8, 5-membered aromatic azacyclic ring optionally incorporating one further N atom; R8 = H, alkyl, etc.] and their pharmaceutically acceptable salts which are inhibitors of the enzyme nitric oxide synthase and are thereby particularly useful in the treatment or prophylaxis of inflammatory disease, were prepared Thus, protecting a-(2-aminoethyl)benzenemethanol with di-tert-Bu dicarbonate followed by reacting the resulting carbamate with 4-chloro-2-hydroxybenzonitrile in the presence of triphenylphosphine and di-Et diazodicarboxylate in PhMe/THF, and deprotection of the amine afforded I.HCl [X = Cl; Y = CN, Z = H; V = O; W = Ph; R1, R2 = H]. The exemplified compds. I showed IC50 of < 25 µM against nitric oxide synthase.
- IT 357401-87-7P RI: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified), SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study): PREP (Preparation); USES (Uses)

(preparation of phenylheteroalkylamines as inhibitors of nitric oxide synthase)

- RN 357401-87-7 CAPLUS
- N Benzonitrile, 4-chloro-2-[(1R)-3-(4-methyl-1-piperazinyl)-1-phenylpropoxy], hydrochloride (1:2) (CA INDEX NAME)

Absolute stereochemistry.

● 2 HC1

IT 357405-84-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of phenylheteroalkylamines as inhibitors of nitric oxide synthase)

- RN 357405-84-6 CAPLUS
- CN 1-Piperazinecarboxylic acid, 4-[(3R)-3-(5-chloro-2-cyanophenoxy)-3phenylpropyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:76 CAPLUS

DOCUMENT NUMBER: 134:207795

TITLE: New 1-aryl-3-(4-arylpiperazin-1-yl)propane

derivatives, with dual action at 5-HT1A serotonin receptors and serotonin transporter, as a new class of

antidepressants

AUTHOR(S): Martinez-Esparza, Javier; Oficialdegui, Ana-M.;

Perez-Silanes, Silvia; Heras, Begona; Orus, Lara; Palop, Juan-A.; Lasheras, Berta; Roca, Joan; Mourelle, Marisa; Bosch, Ana; Del Castillo, Juan-C.; Tordera,

Rosa; Del Rio, Joaquin; Monge, Antonio
CORPORATE SOURCE: Departments of Medicinal Chemistry and Pharmacology

Centro de Investigacion en Farmacobiologia Aplicada (CIFA), Universidad de Navarra, Pamplona, 31080, Spain

SOURCE: Journal of Medicinal Chemistry (2001), 44(3), 418-428

CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:207795

GI

AB In a search toward new and efficient antidepressants, l-aryl-3-(4-arylpiperazin-l-yl)propane derivs. I (R = H, Ph, MeO, NO2, Z = CO, CHOH, CHOR1, Rl = 4-F3CC6H4, 4-MeOC6H4, 3,4-OCH3OC6H3, Ar1 =

2-MeOC6H4, 4-ClC6H4, 2-pyridyl, etc.), II (R = H, 2,5-Me2, 5-Me, 5-NO2, Z = CO, CNOH, CHOH, CHOR1, R1 = 4-F3CC6H4, 3,4-OCH2OC6H3, 1-C10H7, position = 2, 3), III and IV (Ar1 = 2-MeOC6H4, 4-C1C6H4, 2-HOC6H4, Z = CO, CHOH) were designed, synthesized, and evaluated for 5-HT reuptake inhibition and 5-HT1A receptor antagonism. This dual pharmacol. profile should lead, in principle, to a rapid and pronounced enhancement in serotoninergic neurotransmission and consequently to a more efficacious treatment of depression. The design was based on coupling structural moieties related to inhibition of serotonin reuptake, such as y-phenoxypropylamines, to arylpiperazines, typical 5-HT1A ligands. In binding studies, several compds. showed affinity at the 5-HT transporter and 5-HT1A receptors. Antidepressant-like activity was initially assayed in the forced swimming test with those compds. with Ki < 200 nM in both binding studies. Functional characterization was performed by measuring the intrinsic effect on rectal temperature in mice and also the antagonism to 8-OH-DPAT-induced hypothermia. The most efficacious compds. II (R = H, Z = CHO-1-C10H7, position = 3, Ar1 = 2-MeOC6H4) (V), II[R = 5-Me, Z = (E)-CNOH, position = 2, Ar1 = 2-MeOC6H4] and IV (Z = CO, CHOH, Ar1 = 2-MeOC6H4) (VI) were further explored for their ability to antagonize 8-OH-DPAT-induced inhibition of forskolin-stimulated cAMP formation in a cell line expressing the 5-HT1A receptor. Furthermore, the antidepressant-like properties of V and VI, which exhibited 5-HT1A receptor antagonistic property in the latter study, were also evaluated in the learned helplessness test in rats. Among these three compds., VI (Z = CHOH) (1-benzo[b]thiophene-3-yl)-3-[4-(2-methoxyphenyl)-1-ylpropan-1-ol] showed the higher affinity at both the 5-HT transporter and 5-HT1A receptors (Ki = 20 nM in both cases) and was also active in the other pharmacol. tests. Such a pharmacol. profile could lead to a new class of antidepressants with a dual mechanism of action and a faster onset of action.

IT 328248-11-9P 328248-15-3P 328248-21-1P 328248-23-3P 328248-24-4P 328248-26-6P

328248-30-2P 328248-33-5P 328248-36-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation, 5-HT1A serotonin receptor antagonist and serotonin transporter activity, and structure-activity relationship of aryl(arylpiperazinyl)propanes)

328248-11-9 CAPLUS

RN

CN Piperazine, 1-(2-methoxyphenyl)-4-[3-phenyl-3-[4-

(trifluoromethyl)phenoxy[propyl]-, hydrochloride (1:2) (CA INDEX NAME)

$$\stackrel{\text{OMe}}{\underset{N}{\longrightarrow}} \text{N---} \text{CH}_2\text{---} \text{CH}_2\text{---} \text{CH}-\text{O}$$

●2 HC1

- RN 328248-15-3 CAPLUS
- CN Piperazine, 1-(4-chloropheny1)-4-[3-pheny1-3-[4-(trifluoromethy1)phenoxy]propy1]- (CA INDEX NAME)

- RN 328248-21-1 CAPLUS
- CN Piperazine, 1-(4-methoxyphenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy|propyl]- (CA INDEX NAME)

- RN 328248-23-3 CAPLUS
- CN Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1piperazinyl]- (CA INDEX NAME)

- RN 328248-24-4 CAPLUS
- CN Piperazine, 1-(2-chlorophenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

$$\begin{array}{c} \text{C1} & \text{Ph} & \text{CF}; \\ \text{N} & \text{CH}_2\text{-CH}_2\text{-CH}-\text{O} \end{array}$$

- RN 328248-26-6 CAPLUS
- CN Piperazine, 1-(4-fluorophenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-, hydrochloride (1:2) (CA INDEX NAME)

● 2 HC1

- RN 328248-30-2 CAPLUS
- CN Piperazine, 1-(4-nitrophenyl)-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]- (CA INDEX NAME)

- RN 328248-33-5 CAPLUS
- CN Piperazine, 1-[3-[1,1'-bipheny1]-4-yl-3-[4-(trifluoromethyl)phenoxy]propyl]-4-(2-methoxyphenyl)-, hydrochloride (1:2) (CA INDEX NNBL)

● 2 HC1

- RN 328248-36-8 CAPLUS
- CN Piperazine, 1-(2-methoxyphenyl)-4-[3-(4-methoxyphenyl)-3-[4-(trifluoromethyl)phenoxylpropyl]- (CA INDEX NAME)

54

REFERENCE COUNT:

THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:601312 CAPLUS

DOCUMENT NUMBER: 133:305272

TITLE: Design, synthesis and biological evaluation of new 3-[(4-aryl)piperazin-1-yl]-1-arylpropane derivatives

as potential antidepressants with a dual mode of action; serotonin reuptake inhibition and 5-HT1A

receptor antagonism

AUTHOR(S): Oficialdegui, A. M.; Martinez, J.; Perez, S.; Heras, B.; Irurzun, M.; Palop, J. A.; Tordera, R.; Lasheras,

B.; Del Rio, J.; Monge, A.

CORPORATE SOURCE: Department of Medicinal Chemistry, Centro de

Investigacion en Farmacobiologia Aplicada (CIFA), Universidad de Navarra, Pamplona, 31080, Spain

SOURCE: Farmaco (2000), 55(5), 345-353 CODEN: FRMCE8: ISSN: 0014-827X

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:305272

GI

$$\begin{array}{c} \text{MeO} \\ \text{C} - \text{CH}_2 - \text{CH}_2 - \text{N} \\ \text{Me} \end{array}$$

- AB It has been suggested that the combination of a selective serotonin reuptake inhibitor (SSRI) and a 5-HTIA receptor antagonist may facilitate the onset of the SSRIs antidepressant action. Accordingly, we describe the synthesis of a series of new 3-((4-aryl)piperazin-1-yl)-1-arylpropane derivs. with structural modifications performed in Arl, Ar2 and Z (Z is different functional groups) to obtain the sought dual activity. Compds. were evaluated for in vitro affinity at 5-HTIA receptors and 5-HT transporter. The antidepressant-like activity of derivs. with the higher affinity was assessed initially using the forced swimming test (FST). Compound 1-(2,4-dimethylphenyl)-3-((2-methoxyphenyl)piperazin-1-yl)-1-propanone (I) showed the best antidepressant-like activity which was further confirmed in the learned helplessness test.
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(design, synthesis and antidepressant activity of

[(aryl)piperazinyl]arylpropane derivs.)

RN 302561-62-2 CAPLUS CN Piperazine, 1-(2-me

Piperazine, 1-(2-methoxyphenyl)-4-[3-(4-methylphenyl)-3-[4-(trifluoromethyl)phenoxy[propyl]- (CA INDEX NAME)

42

REFERENCE COUNT:

THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:655827 CAPLUS DOCUMENT NUMBER: 121 - 255827

ORIGINAL REFERENCE NO.: 121:46707a,46710a

Preparation of (hetero)arylpropanolamine derivatives

as cerebral calcium overload blockers

INVENTOR(S): Jakobsen, Palle; Kanstrup, Anders; Lundbeck, Jane

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------------|------|----------|-----------------|----------|
| | | | | |
| EP 576766 | A1 | 19940105 | EP 1992-610053 | 19920629 |
| R: GB PRIORITY APPLN. INF | | | EP 1992-610053 | 19920629 |

OTHER SOURCE(S):

MARPAT 121:255827 AB XR3(R0)CCR4R5CR6R7NR1R2 [X = Ph optionally substituted with one or more cyano, halo, haloalkyl, alkoxy, alkyl, alkanoyl, alkenyl, aryloxy, aralkoxy, amino, alkyl mono or disubstituted amino, alkanoylamino, carbamoyl, alkyl mono- or disubstituted carbamoyl, alkyl substituted with amino, alkyl mono or disubstituted amino, NO2, morpholino, imidazolyl; R = 3,4-methylenedioxyphenyl, aryl or heteroaryl all of which can be optionally substituted with one or more cyano, halogeno, alkyl, alkoxy, alkenyl, trifluoromethyl, alkylene, aryloxy, aralkoxy, alkylthio; R1, R2 = alkyl, cycloalkyl, alkenyl, cycloalkylalkyl, all of which can be unsubstituted or substituted with alkvl, alkoxy or cyano; R1R2 = 5-, 6- or 7-membered ring containing ≥1 N atom, or which optionally contains 2 N atoms, one or 2 O atom(s) or one or 2 S atom(s) or a combination thereof, which ring is optionally substituted with alkyl, alkoxy, or aryl; and R3-R7 = H, alkyl, phenyl; R4X = carbocyclic ring containing 5 or 6 atoms; or salts thereof with a pharmaceutically acceptable acid; with provisos], were prepared Thus, 1-(4-cyanophenyl)-3-piperidinylpropan-1-ol was condensed with 4-trifluoromethylbenzotrifluoride using KOCMe3 to give 1-[3-(4-cyanophenyl)-3-(4-trifluoromethylphenoxy)propyl[piperidine. isolated as the oxalate. The latter inhibited stimulated uptake of 45Ca by rat P2 synaptosomal prepns. with IC50 = 2.2 μg/mL, vs. 26 μg/mL for nifedipine. Generic I formulations are given.

158545-83-6P 158545-84-7P 158545-85-8P

158546-05-5P 158546-06-6P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as cerebral calcium overload blocker)

RN 158545-83-6 CAPLUS

Piperazine, 1-methyl-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-CN (CA INDEX NAME)

$$\begin{array}{c} Ph \\ N - CH_2 - CH_2 - CH - O \end{array}$$
 Me

RN 158545-84-7 CAPLUS

CN 1-Piperazineethanol, 4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-(CA INDEX NAME)

RN 158545-85-8 CAPLUS

CN Piperazine, 1-pheny1-4-[3-pheny1-3-[4-(trifluoromethy1)phenoxy]propy1](CA INDEX NAME)

RN 158546-05-5 CAPLUS

CN Piperazine, 1-methyl-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-, ethanedioate (1:1) (CA INDEX NAME)

CM :

CRN 158545-83-6 CMF C21 H25 F3 N2 O

$$\begin{array}{c} Ph \\ N - CH_2 - CH_2 - CH - O \end{array}$$
 Me

CM 2

CRN 144-62-7

10/513699

CMF C2 H2 O4

0 0 || || HO-C-C-OH

RN 158546-06-6 CAPLUS
CN Piperazine, 1-phenyl-4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-, ethanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 158545-85-8 CMF C26 H27 F3 N2 O

$$\begin{array}{c} \text{Ph} \\ \text{N} - \text{CH}_2 - \text{CH}_2 - \text{CH} - \text{O} \\ \end{array}$$

CM 2

CRN 144-62-7 CMF C2 H2 O4

0 0 || || HO- C- C- OH

L13 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1989:95279 CAPLUS DOCUMENT NUMBER:

110:95279

ORIGINAL REFERENCE NO.: 110:15755a,15758a

TITLE: 1-[(1,1-Diphenyl)-1-alkenyl]piperazine derivatives as

antidepressants and their preparation

INVENTOR(S): Buzas, Andre; Ollivier, Roland

PATENT ASSIGNEE(S): Laboratoires Meram, Fr. SOURCE: Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------------|------------|------------------------|------------|
| | | | | |
| EP 288360 | A1 | 19881026 | EP 1988-400903 | 19880414 |
| R: AT, BE, | CH, DE, ES | , FR, GB, | GR, IT, LI, LU, NL, SE | |
| FR 2614021 | A1 | 19881021 | FR 1987-5311 | 19870414 |
| FR 2614021 | B1 | 19910301 | | |
| FI 8801633 | A | 19881015 | FI 1988-1633 | 19880408 |
| NO 8801554 | A | 19881017 | NO 1988-1554 | 19880411 |
| US 4882331 | A | 19891121 | US 1988-179750 | 19880411 |
| DK 8802009 | A | 19881015 | DK 1988-2009 | 19880413 |
| JP 63258862 | A | 19881026 | JP 1988-89163 | 19880413 |
| CA 1295617 | С | 19920211 | CA 1988-564057 | 19880413 |
| AU 8814634 | A | 19881020 | AU 1988-14634 | 19880414 |
| AU 605275 | B2 | 19910110 | | |
| ZA 8802633 | A | 19881228 | ZA 1988-2633 | 19880414 |
| PRIORITY APPLN. INFO |).: | | FR 1987-5311 | A 19870414 |
| OTHER SOURCE(S): GI | CASREA | CT 110:952 | 279; MARPAT 110:95279 | |
| | | | | |

$$R^{1}$$
 R^{2}
 $C=CH(CH_{2})_{n}N$
 $N(CH_{2})_{m}CHZA$
 R^{3}
 R^{4}

The title compds. I [R1-R5 = H, halo, C1-6 alkyl, alkenyl, etc.; n = 1-3; AB m = 0-3; Z = H, C1-6 alkyl, (substituted) Ph; A = 0, C0] and pharmaceutically acceptable salts thereof, useful as antidepressants, were prepared N-Alkylation of 1-(1,1-diphenyl-1-buten-4-yl)piperazine with 2-bromo-1-(4-fluorophenoxy)ethane gave (after treatment with MeSO3H) gave I.2MeSO3H (R1-R4 = H, Z = H, R5 = 4-F, n = 2, m = 1, A = O) (II). II at 18.8 mg/kg i.p. inhibited head twitches induced by 5-hydroxytryptophan in

Ι

mice.

IT 118976-76-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of, as antidepressant)

RN 118976-76-4 CAPLUS

CN Piperazine, 1-(4,4-diphenyl-3-butenyl)-4-[3-(4-fluorophenoxy)-3-phenylpropyl]-, dimethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 118976-75-3

CMF C35 H37 F N2 O

CM 2

CRN 75-75-2 CMF C H4 03 S

L13 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1979:132586 CAPLUS

DOCUMENT NUMBER: 90:132586

ORIGINAL REFERENCE NO.: 90:20867a,20870a

TITLE: Smooth muscle relaxant properties of

2-naphthyl-oxyacetic acid amides

AUTHOR(S): Pestellini, Vittorio; Ghelardoni, Mario; Del Soldato, Piero; Volterra, Giovanna

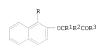
CORPORATE SOURCE:

Res. Lab., A. Menarini Pharm., Florence, Italy SOURCE: European Journal of Medicinal Chemistry (1978), 13(5),

CODEN: EJMCA5; ISSN: 0009-4374

DOCUMENT TYPE: Journal

LANGUAGE: English GT



AR Twenty-eight 2-naphthyloxyacetamides (I; R = H or Cl; R1 = H or Me; R2 = H, Me, or Ph; R3 = NHR or 4-substituted piperazinyl) were synthesized by reaction of the appropriate amines with the acylchlorides, and were tested for their smooth muscle relaxant properties in vitro and in vivo. Quaternary salts were prepared by treatment of the tertiary bases with MeBr. Structure-biol. activity relations are discussed.

69478-96-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and smooth muscle-relaxant activity of)

RN 69478-96-2 CAPLUS

CN Ethanone, 2-[(1-chloro-2-naphthalenyl)oxy]-1-(4-methyl-1-piperazinyl)-2phenvl- (CA INDEX NAME)

| => d his |
|---|
| (FILE 'HOME' ENTERED AT 16:23:34 ON 10 MAR 2009) |
| FILE 'REGISTRY' ENTERED AT 16:24:30 ON 10 MAR 2009 L1 STRUCTURE UPLOADED L2 116 S L1 FULL |
| FILE 'CAPLUS' ENTERED AT 16:25:35 ON 10 MAR 2009 L3 $\rm 10~S~L2~FULL$ |
| FILE 'REGISTRY' ENTERED AT 16:27:34 ON 10 MAR 2009 L4 STRUCTURE UPLOADED L5 6 S L4 FULL |
| FILE 'CAPLUS' ENTERED AT 16:28:26 ON 10 MAR 2009 L6 6 S L5 FULL |
| FILE 'REGISTRY' ENTERED AT 16:30:33 ON 10 MAR 2009 L7 STRUCTURE UPLOADED L8 74 S L7 FULL |
| FILE 'CAPLUS' ENTERED AT 16:31:15 ON 10 MAR 2009 L9 8 S L8 FULL |
| FILE 'REGISTRY' ENTERED AT 16:34:04 ON 10 MAR 2009 L10 STRUCTURE UPLOADED L11 6 S L10 FULL |
| FILE 'CAPLUS' ENTERED AT 16:35:00 ON 10 MAR 2009 L12 |
| => log y COST IN U.S. DOLLARS |
| FULL ESTIMATED COST 92.74 843.66 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) CA SUBSCRIBER PRICE SINCE FILE ENTRY SESSION -13.12 -13.12 |

STN INTERNATIONAL LOGOFF AT 16:38:02 ON 10 MAR 2009